



Clean copy of amended claims of Serial No. 09/757,765, Synfuels Composition and Method of Using Same

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I claim:

1. An aqueous synfuel emulsion for use as an additive combustible materials to facilitate chemical bonding therewith and complete combustion, said aqueous composition comprising 1.0% weight of polyvinyl alcohol, 10% to 35% by weight of a hydrocarbon wax and the balance of water, wherein all weight percentages are based on the total weight of the emulsion.

2. An aqueous synfuel emulsion as claimed in claim 1 wherein the hydrocarbon wax is selected from the group consisting of paraffin wax, slack wax, microcrystalline wax, olefinic wax materials and mixtures thereof.

3. An aqueous synfuel emulsion as claimed in claim 1 which comprises 2 to 5% by weight of polyvinyl alcohol, 15 to 30% weight of a hydrocarbon wax, 0 to 0.5% of a biocide and the balance of water.

4. An aqueous synfuel emulsion claimed in claim 4 which comprises 2 to 4.5% by weight of polyvinyl alcohol, 16 to 26% by weight of a hydrocarbon wax, 0 to 0.10% by weight of a biocide and the balance of water.

5. An aqueous emulsion as claimed in claim 4 which further comprises 1.0% to 10.0% by weight of one or more filler materials, based on the total weight of the emulsion.
6. A method of assisting complete combustion of a material, said method comprising the step of applying to the material, an aqueous composition which comprises 1.0 to 10.0% by weight of polyvinyl alcohol, 10.0 to 35.0% by weight of a hydrocarbon wax, and the balance of water, wherein all weight percentages are based on the total weight of the composition, and allowing a chemical change to occur.
7. A method as claimed in claim 6 wherein said composition is in the form of an emulsion.
8. A method as claimed in claim 6 wherein said composition also includes 1.0 to 10.0 % by weight of a filler material, based on the total weight of the composition.
9. A method as claimed in claim 6 wherein said composition comprises 2 to 4.5% by weight of polyvinyl alcohol, 16 to 26% by weight of a hydrocarbon wax, 0 to 0.505 percentage by weight of a biocide, and the balance of water.
10. A method as claimed in claim 6 wherein the composition is applied to the material by spraying.

11. A method as claimed in claim 6 wherein the material is coal.
12. A method as claimed in claim 6 wherein said method complies with the Federal Air Quality Regulations, Section 40 of the Code of Federal Regulations.
13. The aqueous synfuel emulsion as in claim 1 and further comprising a percentage of polyvinyl acetate in said composition.
14. The aqueous synfuel emulsion of claim 14 wherein said percentage of polyvinyl acetate is 10%.
15. The aqueous synfuel emulsion of claim 1 and further comprising raw coal added to said composition.
16. The composition of claim 15 and polyvinyl acetate.
17. The composition of claim 16 wherein the percentage of polyvinyl acetate is 10%.
18. The composition of claim 15 wherein the range of polyvinyl acetate is from 0% to 20%.
19. An emulsion which reacts with coal to chemically change the functional group bonding found in coal, said emulsion comprising
 - 0 to 10% polyvinyl alcohol
 - 0 to 70% wax hydrocarbon
 - 0 to 40% neutralized fatty acid
 - 0 to 20% polyvinyl acetate

0 to 10 % filler material

0 to 99% water.

20. An emulsion as in claim 21 and further comprising a biocide.
21. An emulsion as in claim 21 which changes the composition of coal to qualify for tax credits in section 20 of the Internal Revenue Code of the United States.